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Bank of Japan

Our Future in the Digital Age

Closing Remarks at the G20 High-level Seminar on Financial Innovation

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I am delighted to be given this opportunity to speak to you at the end of this important seminar.

Today, we discussed two topics on the theme of "Our Future in the Digital Age." The first session explored potential benefits and risks arising from financial and technological innovation. As a key to achieving a better society, speakers highlighted the importance of leveraging emerging digital technology in financial services. At the same time, they also pointed out the build-up of risks in the financial and economic system. The second session examined blockchain technology. The panel laid out key factors to facilitate a sound expansion of decentralized financial ecosystems.

Ongoing financial innovation is anticipated to further impact the financial and economic system. Although it is difficult to predict the outcomes, we can learn from the progress and issues arising from financial innovation in the past decades. For example, credit and market risk management tools along with risk transfer technology enhanced financial intermediation. On the other hand, however, the global financial crisis was partly attributable to such progress in technology, which is still fresh in our minds. How then can we mitigate risks while benefiting from innovative technology?

A good clue to that would be to interpret financial and economic activities as interactions within a system as well as among multiple systems. Examples include portfolio insurance strategies on Black Monday, which led to an unexpectedly sharp drop in equity prices through interactions among market participants. The recent financial crisis displayed a feedback loop between deteriorated liquidity in securitization markets and severe funding conditions in the banking sector. Historically, the financial system has carried risk-amplifying mechanisms in an insidious manner that would pose serious threats to the system as a whole. People realized their mistakes only after unexpected disasters took place. The modern financial system has repeated such experiences.

Innovative financial services and new entrants have begun to transform the structure of the financial system. We should reap the benefits of innovation while carefully assessing risks that build up unintentionally.

Recent innovation also provides us with policy tools to address these issues. Incorporating big data into analytics reveals how individual market transactions and payment flows make up the entire financial network. Evolution in computing capacity and computational technology has brought changes to existing analytical approaches, which requires the simplification of the financial and economic system for applying theoretical models. Emerging technology allows us to observe details and model the system as it really is, helping assess interactions among firms, individuals, and market participants. Technology that deals with unstructured data, including text, images, and audio, has evolved quite rapidly. It could also be applied to broader areas, such as the analysis of market sentiments and expectation formation.

Paradoxically, the more technology evolves, the more human aspects draw attention. These are closely linked to the actions of individuals and institutions. A deeper understanding of micro behaviors would help us better predict macro-economic and financial outcomes.

I hope this G20 high-level seminar has provided you valuable insights to shape the future of the digital age.

Thank you for your attention.